REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1, 2, 4-8, 10-13, 17, and 18 are pending in the present application, Claims 1, 2, 4-8, and 10-13 having been amended, and Claims 17 and 18 having been added. Support for the amendments to Claims 1, 2, 4-8, and 10-13 is found, for example, at page 24, lines 15-24 of the originally filed specification. Support for new Claims 17 and 18 is also found, for example, at page 24, lines 15-24. Applicant respectfully submits that no new matter is added.

In the outstanding Office Action, Claims 2, 4-6, 8, and 10-13 were objected to; Claim 12 was rejected under 35 U.S.C. §112, second paragraph; Claims 1, 2, 4, 5, 7, 8, and 10-13 were rejected under 35 U.S.C. §103(a) as unpatentable over Laaksonen et al. (*Content-Based Image Retrieval Using Self-Organizing Maps*, hereinafter Laaksonen) in view of Yoon et al. (U.S. Patent No. 6,621,926, hereinafter Yoon), and further in view of Wolff (U.S. Patent No. 5,847,708); and Claim 6 was rejected under 35 U.S.C. §103(a) as unpatentable over Laaksonen, Yoon, Wolf and *A Self-Organizing Semantic Map for Information Retrieval*, by Xin Lin (hereinafter Lin).

With respect to the objection to the claims, the informalities noted in the outstanding Office Action are corrected. Applicants respectfully submit that the objection to the claims is overcome.

With respect to the rejection of Claim 12 under 35 U.S.C. §112, second paragraph, the informality noted in Claim 12 is corrected. Applicants respectfully submit that this ground of rejection is overcome.

With respect to the rejection of Claim 1 as unpatentable over Laaksonen in view of Yoon, and further in view of Wolff, Applicant respectfully submits that the amendment to Claim 1 overcomes this ground of rejection. Amended Claim 1 recites, *inter alia*,

> a user control configured to, in response to a user input,
> select a plurality of video images and to specify a combination
> of the plurality of selected video images, and
>
> a search processor configured
>
> > to form a color histogram for each of the user
> > selected video images,
> >
> > to generate a composite color histogram from
> > the specified combination of each of the color histograms from
> > each of the selected video images,
> >
> > to generate a user defined feature vector from
> > the user selected video images using the composite color
> > histograms, [and]
> >
> > to search the set of information items by
> > applying the user defined feature vector to the input of the self-
> > organizing map to identify information items which include
> > video images having color histograms corresponding to that of
> > the user selected video images.

Laaksonen, Yoon, and Wolff, taken alone or in proper combination, do not disclose or

suggest these elements of Claim 1.

Laaksonen describes searching images using a self organizing map.[1] Laaksonen

describes that a feature vector from the average of R, G, and B values for five separate

regions of each image.[2] This produces a 15-dimensional color feature vector that describes

the average color of the image and also gives information on the color composition.[3]

However, Laaksonen does not disclose or suggest the claimed

> a user control configured to, in response to a user input,
> select a plurality of video images and to specify a combination
> of the plurality of selected video images, and
>
> a search processor configured
>
> > to form a color histogram for each of the user
> > selected video images,

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[1] Laaksonen, pages 541-542.
[2] Laaksonen, bottom of page 542.
[3] Laaksonen, section 2.1, from bottom of page 542 to top of page 543.

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to generate a composite color histogram from
the specified combination of each of the color histograms from
each of the selected video images,

to generate a user defined feature vector from
the user selected video images using the composite color
histograms, [and]

to search the set of information items by
applying the user defined feature vector to the input of the self-
organizing map to identify information items which include
video images having color histograms corresponding to that of
the user selected video images.

Section 5 of Laaksonen, beginning on page 547, describes future plans that include

the use of color histograms. However, this passing reference to color histograms does not

disclose or suggest the above-noted elements of Claim 1.

Yoon does not cure the above-noted deficiencies in Laaksonen. Yoon describes an

image retrieval system that uses a color histogram. Fig. 2 of Yoon is a flow chart of an

operation of an index information generator. An image is scanned, and color values to

respective coordinates are accumulated in the corresponding bins. The technique Yoon

describes for searching video images is explicitly associated with a technique of normalizing

respective central points and dispersion values of a color histogram by dividing the central

points and dispersion values by a size of the whole image.[4] Thus, Yoon is concerned with

manipulating a color histogram in order to improve the likelihood of a successful search.

Yoon does not disclose or suggest the claimed

a user control configured to, in response to a user input,
select a plurality of video images and to specify a combination
of the plurality of selected video images, and

a search processor configured

to form a color histogram for each of the user
selected video images,

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[4] Yoon, col. 4, lines 25-30.

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> to generate a composite color histogram from the specified combination of each of the color histograms from each of the selected video images,
>
> to generate a user defined feature vector from the user selected video images using the composite color histograms, [and]
>
> to search the set of information items by applying the user defined feature vector to the input of the self-organizing map to identify information items which include video images having color histograms corresponding to that of the user selected video images.

Wolff does not cure the above-noted deficiencies in Laaksonen and Yoon. Wolff does not disclose or suggest generating a related search based on information items which are related to the video image which has been selected and based on color histogram information of the image concerned.

Wolff describes a system that learns a spatial structure for some set of documents through interaction with a user. By operating interactively with a user, the system of Wolff learns one or more underlying metrics that approximate the user's own cognitive structuring of the domain.[5]

Wolff does not disclose or suggest the claimed

> a user control configured to, in response to a user input, select a plurality of video images and to specify a combination of the plurality of selected video images, and
>
> a search processor configured
>
> to form a color histogram for each of the user selected video images,
>
> to generate a composite color histogram from the specified combination of each of the color histograms from each of the selected video images,

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[5] *See*, Wolf at col. 4, line 55 to col. 5, line 10.

> to generate a user defined feature vector from the user selected video images using the composite color histograms, [and]

> to search the set of information items by applying the user defined feature vector to the input of the self-organizing map to identify information items which include video images having color histograms corresponding to that of the user selected video images.

Since <u>Laaksonen</u>, <u>Yoon</u>, and <u>Wolff</u> each fail to disclose or suggest the above-noted elements of Claim 1, Applicant respectfully submits that a person of ordinary skill in the art could not properly combine the references to arrive at the invention defined by Claim 1.
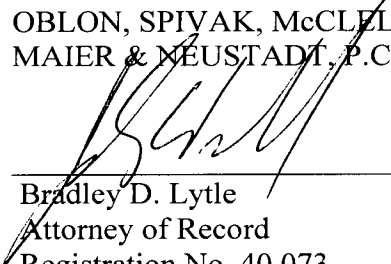
Applicant respectfully submits that Claim 1 (and any claims dependent thereon) patentably distinguish over <u>Laaksonen</u>, <u>Yoon</u>, and <u>Wolff</u>, taken alone or in proper combination. Amended Claims 7 and 13 recite elements similar to those of Claim 1. Applicant respectfully submits that Claims 7 and 13 (and any claims dependent thereon) patentably distinguish over <u>Laaksonen</u>, <u>Yoon</u>, and <u>Wolff</u>, taken alone or in proper combination, for at least the reasons stated for Claim 1.

Addressing each of the further rejections, each of the further rejections is also traversed by the present response as no teachings in any of the further cited references to <u>Lin</u> can overcome the above-noted deficiencies of <u>Laaksonen</u>, <u>Yoon</u>, and <u>Wolff</u>. Accordingly, it is respectfully requested that those rejections be withdrawn for similar reasons as discussed above.

Consequently, in light of the above discussion and in view of the present amendment,

the present application is believed to be in condition for allowance and an early and favorable

action to that effect is respectfully requested.

Respectfully submitted,

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